

REMARKS

Reconsideration of the subject patent application is respectfully requested.

Claims 22, 25-28, and 31-40 are currently pending and all claims have been rejected by the Examiner based upon one or more cited prior art references. More specifically, claims 22, 27, 28, 32, 35, 37, 39, and 40 are rejected under 35 U.S.C. § 102(b) as being anticipated by Pampuch (US 4,174,710). Claims 25, 26, 31, 33, and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pampuch. Claims 36 and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pampuch in view of Wood (GB 2 078 491). In response to the Final Office Action, claims 22 and 39 have been amended and the Examiner is asked to consider these amendments in view of the following further remarks and explanations.

Referring first to claim 22, this claim recites a (protective) hood with a plurality of peripheral sealing elements. The amendment to claim 22 adds the feature of “closeout” abutment by those peripheral sealing elements against and around the respirator which is received by the face opening. Accordingly, the inventive subject matter has been further defined by introducing a functional feature pointing to the close and air-tight connection between the hood, on the one hand, and the respirator received by the face opening of the hood, on the other hand. This guarantees a safe connection between the two elements, thus ensuring a high protection against noxians and the like. A similar amendment has been made to claim 39. Support for this amendment is found in the Summary and on page 3, line 9, of the original English text.

The importance of a securely and tightly sealed (closed out) interface around a respirator has already been presented to the Examiner in the English translation of the application, pointing out the prior art deficiencies as noted on page 1, in line 23, through page 2, line 16. The Examiner is respectfully requested to re-read this portion of the specification in order to help focus on the deficiencies of the prior art including the cited Pampuch reference.

The specification then summarizes one object to be solved by the disclosed and claimed structure and the focus on the nature of the sealed interface around the respirator. See page 2, lines 18-28 of the English translation of the application. As explained, one object of the disclosed structure is satisfied by a hood being provided with a circumferential elastic hem to form a face opening, wherein the side of the hem that faces into the face opening is provided with specific circumferential sealing elements in the form of elastofibers being arranged in parallel according to claim 22. Furthermore, the object is solved by the clothing item of the invention according to claims 37 and 39.

In further support of the patentability of the disclosed and claimed structure, the following aspects are being brought to the attention of the Examiner:

- (1) With respect to the present disclosure, one advantage is that, for the first time, a specific hood is provided which is equipped with a multiplicity of very specific sealing elements in the form of elastofibers being durably conjoined with the hem of the hood and being specifically arranged to each other. Thus, an effective sealing especially to a respirator is provided when the hood is worn resulting in an effective protection against poisons substances, especially against warfare agents.

- (2) Owing to the use of elastofibers which exhibit high elastic properties, high restoring forces can be realized further improving the sealing of the interface since the elastic properties of the elastofibers result in an effective pressing of the hem of the hood against the respirator.
- (3) Due to the presence of a plurality of sealing elements in form of elastofibers, a multiple level protective function results, which is further improved by the essentially parallel arrangement of the elastofibers. Due to the parallel arrangement of the elastofibers, a multiple barrier for poisonous substances, especially warfare agents, is provided, resulting in an improved sealing of the interface between the hood/hem and the respirator.
- (4) Due to the use of specific elastofibers in combination with the parallel arrangement of these fibers, linear abutment of the sealing elements is achieved, resulting in an increase in the contact pressure ensuring an excellent closeout (see page 6, lines 4 to 15 of the English translation of the application).
- (5) The inventive concept and disclosed structure are realized with simple means and measures. The present disclosure explains the permanent joining of the sealing elements to the hem and that this can be performed by well-known methods, e.g. by stitching, interweaving, adhering, stapling or welding as delineated in the disclosure.

- (6) One benefit of the present disclosure is seen in the fact that the hem as a part of the hood can be produced on the same production machines as the hood itself, resulting in a significant simplification of the production and a reduction of costs.
- (7) As a result of the parallel arrangement of the sealing element and the resulting high contact pressure between the hem and the respirator, it is not required to coordinate the sealing elements with the respirator. Thus, the present disclosure provides a hood with sealing properties, which can be used independently from a counterpart, i.e. a respirator. Thus, an universal use of the inventive hood results. In this context, with respect to the use of the inventive hood, it is not necessary to provide a specific arrangement of the hood in the use state with respect to the counterpart in the sense of a key/lock-principle. Thus, the manageability of the hood is further improved since it is easy to use.

The Examiner is further advised that in all parallel prosecution proceedings the patentability of the claimed subject-matter has been agreed upon, resulting in the acknowledgment of patentability in Europe (EP 1 628 713 B1), Germany (DE 103 27 994 B4), Canada (CA 2 524 465) and Japan (Japanese Patent 4,257,663). Furthermore, the European Patent Office in its function as IPEA has also acknowledged the patentability of all amended Claims 1 through 20 filed on behalf of international prosecution phase.

In this context, it is also pointed out that the Pampuch-reference has been explicitly acknowledged in Germany, Canada and Europe and has been classified with respect to the international search report as a so-called "A-Document" and thus as a prior

art document which only defines the general background art but which is as such not pertinent.

Notwithstanding the foregoing facts and analyses, the Examiner still sticks to her opinion that the Pampuch reference (US 4,174,710) would be pertinent with respect to the pending claims. However, this assessment by the Examiner does not hold true for the reasons given hereinafter.

First, it is Applicant's position that the Examiner has misinterpreted the teaching of Pampuch especially with respect to the elastic connecting band described therein. The connecting band which is described decisively differs from the inventive concept with the provision of separate sealing elements in the form of specific elastofibers.

Pampuch refers to a connection between two parts of a flexible protecting covering for a person, with one of the parts having an opening therein facing the other part. The connection comprises an elastic band having one edge secured to one part around the opening. The band extends away from that one part and surrounds a portion of the other part. The free edge of the band is thickened relative to the adjoining portion thereof and provided with a continuous groove in its inner surface extending around the thickened portion. The outer surface of the portion of the other part which is surrounded by the band is provided with surrounding, laterally-spaced ribs including one rib projecting into the groove and holding the two parts of said protective covering together.

Pampuch focuses on a connection principle of the two parts on the basis of a key/lock-mechanism, wherein the "key" is represented by the retainer rib (3) and wherein the "lock" is represented by the thickened portion (5a) with the peripheral groove (5) of the elastic connection band of the suit.

In this context, concerning the connection of the mask, on the one hand, and the suit, on the other hand, it is explicitly stated in the paragraph bridging columns 1 and 2 of Pampuch as follows:

"In order to join suit 4 to the mask 1, the elastic connecting band 5, which forms part of the suit, is drawn forward over the ribs 2 of the mask and also over the rib 3. As a result, rib 3 is securely held in groove 5c to connect the suit and mask, ..."

Pampuch unambiguously refers to a key/lock-mechanism, requiring an exact adjustment of both parts to be connected in such a way that the key is capable of snapping into the lock. However, according to Applicant's disclosed and claimed structure, there is a focus on the use of multiple elastofibers and an impermeable abutting of those fibers up against the connecting part of the respirator. A secure seal is achieved due to the high elasticity and the resulting high contact pressure of the elastofibers. This secure seal does not require any surface forms or structures on the connecting part of the respirator as the claimed structure is not a key/lock structure. In other words, in Pampuch there must be a matched pair of structural features for the components in order to achieve the key/lock interfit. Applicant's sealing is in essence generic since the respirator does not require any structural features for interfit.

Thus, in contrast to Pampuch, the claimed structure offers the decisive advantage of a universal use of the inventive hood since it is not necessary to provide a specific arrangement and/or positioning of the hood when in use with respect to the connecting part in the form of a respirator. This is in clear contrast to Pampuch which relies on a key/lock structure which requires a matched pair of components.

As a result, the inventive hood is easy to use and provides an effective abutment to a respective counterpart, i.e. a respirator, without any exact positioning of the hood. This aspect is advantageous especially in view of the use of the inventive hood in the military field, especially in combat operations where fast and uncomplicated protection is required.

Furthermore, the Examiner also still sticks to her opinion that the subject-matter of pending Claims 36 and 38 would be unpatentable in view of a combination of Pampuch and GB 2 078 491 A (Wood et al.)

As for the rejection of claims 36 and 38, it is the Applicant's position that the export of features out of Wood et al. (GB 2 078 491) would change the principle of operation of Pampuch and would make Pampuch unsatisfactory for its intended purpose, something which is not permitted by MPEP 2143.01. Wood et al. refers to the provision of a transition region with an air exchange between the hood and the respirator mask. This, however, is not performed nor intended according to Pampuch et al. For this reason, a combination of these two references in the manner indicated is not in compliance with MPEP 2143.01.

With regard to the Examiner's response to the prior arguments, Applicant continues to disagree with the assessment that a single piece component (element (5) of Pampuch) is in fact a plurality of sealing elements. Pampuch only refers to a one-piece-construction of the elastic band. This construction can *per se* not provide the outstanding elastic properties of the inventive concept with the specific use of separate elastofibers. Therefore, it is pointed out once again that Pampuch fails to teach a plurality of

peripheral sealing elements in the sense of the present invention, i.e. the provision of separate elastofibers being fixed on the hem.

Contending that groove 5c of Pampuch would be interpreted as one of a plurality of peripheral elements, is inaccurate since a groove as such could never represent a peripheral element in the sense of the present invention being attached onto a hem. A groove *per se* represents a recess into an existing structure which also means that this element cannot provide any sealing function rather than the function of fixation of a second part, i.e. respirator. Therefore, the groove has nothing in common with the attached sealing elements in the form of elastofibers.

In view of the amending changes and the foregoing remarks, claims 22, 25-28, and 31-40 are in condition for allowance and such action by the Examiner is respectfully requested.

Respectfully submitted,

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